

USAWC STRATEGY RESEARCH PROJECT

**AVIAN INFLUENZA PANDEMIC MAY EXPAND THE  
MILITARY ROLE IN DISASTER RELIEF**

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This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

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Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>15 MAR 2006</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2005 to 00-00-2006</b>	
4. TITLE AND SUBTITLE <b>Avian Influenza Pandemic May Expand the Military Role in Disaster Relief</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) <b>Frank Sherod</b>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>See attached.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>28</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## **ABSTRACT**

AUTHOR: Colonel Frank William Sherod II

TITLE: Avian Influenza Pandemic May Expand The Military Role in Disaster Relief

FORMAT: Strategy Research Project

DATE: 15 March 2006      WORD COUNT: 8,002      PAGES: 28

KEY TERMS: Pandemic, Avian Influenza, Military Support to Civil Authority, Posse Comitatus

CLASSIFICATION: Unclassified

Recent involvement by the U.S. military with hurricane relief and comments by the President on expanding the DOD's role in disaster relief indicates increased missions for an already stretched military. The next national disaster facing the U.S. could be an influenza pandemic. The bird flu virus H5N1 currently threatening Asia and Europe can potentially mutate into a deadly human influenza pandemic with global consequences. The last major flu pandemic in 1918 killed 50 million people worldwide and 600,000 in the U.S. alone. The United States is not prepared for a human pandemic and the military will have a significant role in any national response. While some departmental level planning has been accomplished recently, interdepartmental coordination and clear identification of the lead federal agency is still lacking. This project explains possible effects of a pandemic on the U.S. and current responsibilities of federal departments involved in disaster relief. Analysis is presented on the evolving role the DOD plays should this event become reality and finally recommends preparations that should be accomplished to prepare the nation for this very real threat. An ad-hoc approach to a pandemic will have severe negative and far reaching affects on our nation and must be avoided.



## AVIAN INFLUENZA PANDEMIC MAY EXPAND THE MILITARY ROLE IN DISASTER RELIEF

The role of the United States military in disaster relief operations both internationally and domestically is increasing. In the wake of Hurricane Katrina in the United States gulf coast region, the President of the United States indicated the U.S. military will have an increased role in domestic disaster relief operations. This responsibility primarily belongs to the Department of Homeland Security at the federal level but recent comments by some national leaders suggest that this could change. Based on unique command and control capabilities and other resources that can be mobilized quickly to respond to a disaster, putting the Department of Defense in charge of domestic disaster relief, at first glance, makes sense to many people.

There is no doubt that military assets will be used in the future for domestic disaster relief. The Asian Bird Flu has the potential to lead to a human influenza pandemic that could have staggering affects on the United States and the world. The military's role in an event of this magnitude will be significant and raises many questions. Issues such as local, state, federal and interagency responsibilities as well as lead agency control will be critical. What legal authority and limitations the military has with regard to the Posse Comitatus Act must be reviewed and clarified. And what other effects a disaster relief of this magnitude would have on the military must be explored.

This paper will examine what the potential effects of a human influenza pandemic might be on the United States and what the scope of the disaster response would entail. We will review current roles and planning that is underway, review national documents that have been recently published on a pandemic response, and potential military roles that must be addressed to make a coordinated federal response effective. Changes to current U.S. policy and law may be required. Recommendations for changes in disaster relief operations as well as planning and preparations that must be initiated now will be presented.

### The Influenza Pandemic of 1918

A pandemic is an event that occurs over a wide geographic area and affects an exceptionally high proportion of the population.<sup>1</sup> Outbreaks of "the flu" are common and happen every year. "Seasonal outbreaks are caused by subtypes of influenza viruses that already circulate among people whereas pandemic outbreaks are caused by new subtypes that have not circulated among people..."<sup>2</sup> In the United States alone, 36,000 deaths are attributed to influenza annually.<sup>3</sup> When influenza turns into a global pandemic the impacts normally become much more serious with high levels of illness, death, and disruption to economic and societal

systems. There have been a number of influenza pandemics during the 20<sup>th</sup> century. The most notable and deadly influenza pandemic on record occurred in 1918. Coming at the end of World War One, this pandemic killed an estimated 40 million people worldwide and 675,000 people in the United States alone. Additionally 43,000 United States service members mobilized to fight in World War One died due to the influenza pandemic.<sup>4</sup> This strain of influenza was very contagious and infected over 28 percent of the U.S. population. This fact, combined with no anti-viral medications available during the time period, produced a mortality rate in the United States of 2.5 percent, several times greater than the average mortality rate.<sup>5</sup> Unlike most influenza pandemics that effect very young and very old populations the most, this pandemic's highest death rate was in the 15-34 year old age group. The death rate for this group was 20 times higher in 1918 than in previous years due to the pandemic. Why this unusual age group was most affected is still unknown today. During the peak of the infections, more than 10,000 deaths occurred per week in many major American cities. The impact was so great it caused the life expectancy in the United States to drop by 12 years.<sup>6</sup>

The U.S. population in 1918 was much less concentrated (more rural), less mobile, and on a war footing, and therefore much more inclined to listen to guidance from the state and federal government than could be expected in today's modern society. These and other factors will present significant challenges for the United States when the next influenza pandemic occurs.

#### The Avian Influenza "Bird Flu" H5N1

There is a wide variety of influenza viruses. Type A influenza viruses are categorized into sub-types based on changes to proteins on the surface of the virus itself. Hemagglutinin (HA) subtypes have 16 variations and Neuraminidase (NA) variations have six different strains. These H and N subtypes combine in various forms to make many types of avian influenza.<sup>7</sup> Additionally, influenza A viruses can change over time by either a gradual mutation or what is called a reassortment of one or more of its gene segments between viruses.<sup>8</sup> The key point is that this ability of the virus to change could produce a virus that is very susceptible to human transmission.

The H5N1 influenza strain is extremely contagious and lethal in birds. Since the emergence of the strain in 1997 hundreds of millions of birds have died or been destroyed, to limit its spread in Asia and Eastern Europe. Although originally thought to be not transferable to humans, there have been a number of cases of humans contracting H5N1. These cases have been almost exclusively the result of handling or direct exposure to infected birds. So currently

the ability of humans to catch the virus from birds is not high and the ability of humans to pass the virus to other humans is very low. The sobering fact is that in the 169 documented cases of human H5N1 to date, 91 deaths have occurred.<sup>9</sup> Asia has been hit hardest by the H5N1 virus with human deaths being reported in Cambodia, China, Indonesia, Thailand, and Vietnam. H5N1 deaths have also been confirmed in Turkey and Iraq.<sup>10</sup> Many other Asian countries have now reported H5N1 in bird populations. As well, countries throughout Europe such as Great Britain, Germany, Romania, Greece, Turkey and now Russia are reporting cases of H5N1 as the virus appears to be spreading by birds on migratory routes.<sup>11</sup> As the avian H5N1 becomes more widespread, contact with humans increases thereby increasing the potential for H5N1 to mutate into a form that is more easily passed between humans.

The World Health Organization (WHO) breaks down global pandemics into six phases:

- Inter-pandemic Period
  - Phase 1 – No new influenza virus subtypes detected in humans
  - Phase 2 – No new subtypes in humans, however, circulating animal virus poses a substantial risk of human disease
- Pandemic Alert Period
  - Phase 3 – Human Infections with a new subtype but no new human-to-human spread
  - Phase 4 – Small clusters with limited human-to-human transmission suggesting virus is not well adapted to humans
  - Phase 5 – Larger clusters but human-to-human transmission is still localized suggesting virus is becoming more adapted to humans – substantial pandemic risk
- Pandemic Period
  - Phase 6 – Pandemic – increased and substantial transmission in the general population<sup>12</sup>

We are currently in the phase three alert period for the H5N1 virus. Because H5N1 has not been identified in humans before the current outbreak, there is very little human immunity for this strain. Although the severity of the next influenza pandemic cannot be determined until it emerges, a mutated virus that is easily spread between humans coupled with a high mortality rate is cause for serious concern.

### Primary Means to Combat Pandemic Influenza

Although there is no cure to prevent a pandemic, since the devastation of 1918, a number of methods to combat its effects have been developed. The HHS Pandemic Influenza Plan, published in November 2005, describes a number of response actions which include: surveillance measures, the use of antiviral drugs and vaccine, public health measures, healthcare and emergency response, and public communications.

Surveillance of populations will aid in the early identification of human to human spread of the influenza. This will aid clinical evaluation of the pandemic strain of influenza and help local, state, and federal officials take necessary action to contain the spread of the pandemic.

A vaccine is defined as a living or dead virulent organism that is administered to produce or artificially increase immunity to a particular disease.<sup>13</sup> Vaccines will be a key component of pandemic response as a measure to prevent the spread of the virus. However, a vaccine for a novel pandemic flu strain cannot be mass produced until the virus presents itself and can be studied and broken down. Despite work by scientists at the National Institutes of Health, predictions say the process to develop a vaccine will likely take six to nine months.<sup>14</sup> Only then can an effective vaccine be mass produced – leaving populations unprotected during the early stages of the pandemic.

Antiviral drugs do not prevent infections but lessen the severity of influenza in the body and will be a key treatment during a pandemic particularly in the early stages until a vaccine is available. The two classes of antiviral drugs target hemagglutinin (HA) and neuraminidase (NA) inhibitors respectively. The H5N1 strain has already shown resistance to HA antivirals, leaving the NA inhibitors of oseltamivir (Tamiflu TM) and zanamivir (Relenza TM) as showing benefit in fighting H5N1 viral effects. Production of these antiviral drugs is limited and there is currently no production within the United States. There are a number of antiviral initiatives under way. Generic production is increasing in several countries which will increase overall availability but all U.S. government planning assumptions indicate the demand for antiviral drugs will far exceed on hand quantities. U.S production of oseltamivir is being pursued by HHS to help improve our national posture.<sup>15</sup> The federal government also maintains the Strategic National Stockpile (SNS) of emergency medical supplies which includes antiviral drugs. Even after increasing stockage levels at the end of 2005, quantities in the SNS will treat less than two percent of the U.S. population.<sup>16</sup> The President and Congress are both serious about increasing our preparedness in this area and have approved funding of increases of antiviral drugs to the range of seven percent <sup>17</sup>coverage with more increases likely. In addition to the SNS, the Department of Defense (DOD) has begun to stockpile antiviral medications to cover

military needs and ensure timely distribution to priority populations based on DOD national security priorities.<sup>18</sup>

Public health measures will be an important component of pandemic flu containment. Measures including the use of personal protective equipment such as gloves, masks and hand hygiene, cleaning and disinfecting of common surfaces, and handling of pandemic flu patients must all be addressed. Actions such as canceling public events and activities that put people in close quarters such as school, church, or mass transit will all have to be evaluated for impacts on public health. Control measures such as isolation and quarantine may also be useful tools in slowing the spread of a pandemic and fall within the realm of public health measures.<sup>19</sup>

Healthcare response is another area critical to pandemic response. The ability to surge healthcare services, particularly ICU beds and ventilation services for treatment of pneumonia, will be key. HHS is developing a mass casualty capability that is deployable and targeted to augment organic hospital capacity. A pandemic could quickly become a catastrophic incident with mass fatalities. The ability to transport, process, store and make final disposition of deceased victims will likely overwhelm local capabilities. State and federal augmentation for mortuary services will likely be required.<sup>20</sup>

Finally a public communications campaign that raises awareness and keeps the population accurately informed of pandemic issues is critical. HHS has the federal lead for pandemic information and has developed a Communications and Public Outreach Strategy for Pandemic Influenza. This plan focuses on public information and enabling state and local authorities to communicate effectively with their populations using a variety of means. Intergovernmental coordination at the federal level is also addressed as a key component for a successful communications campaign.<sup>21</sup>

#### Potential Impact of an Influenza Pandemic Outbreak in the United States

The Department of Health and Human Services (HHS) is reluctant to fix casualty figures for a future pandemic based on the number of variables involved. Just during an annual influenza season, the impact on the United States correlates to approximately 36,000 deaths, 226,000 hospitalizations, and direct health care costs between \$1B and \$3B.<sup>22</sup> These are normally low figures based on some type of immunity built up in the human population for various strains already in circulation. Deaths attributed to seasonal influenza are primarily related to aged populations that have reduced immunity or some other progressed/terminal illness and in many cases leads to pneumonia which becomes terminal. Pandemic influenza would be a new strain with little or no human immunity in the human population possibly leading

to more serious morbidity and mortality rates than seasonal influenza. HHS estimates an influenza pandemic similar in scope to 1918, without intervention measures applied against it could result in 1.9 million American deaths, 10 million hospitalizations, and hundreds of billions of dollars in health related costs throughout the course of the pandemic that could last over a year.<sup>23</sup> These numbers are driven by modern trends such as more population in urban areas, increased aging population, and global travel which could lead to significantly more people affected than in past pandemics. Global travel alone will dramatically change the way a pandemic will spread. Pandemic influenza is easily transmitted between people and can be transmitted by people that do not yet show symptoms making it possible for nearly simultaneous outbreaks to occur globally.<sup>24</sup> The pandemic could be spread globally in months or even weeks. With these estimates, health care systems could easily become overloaded. Couple this with many health care providers, first responders, and emergency service providers as victims of the pandemic themselves and you have public systems that will begin to break down.

#### Possible Affects of Pandemic on the U.S. Military

The pandemic of 1918 caused 43,000 deaths in the U.S. military. In the U.S population approximately one in twenty persons between the ages of 18 to 50 (prime service age) died in a span of 10 weeks because of the pandemic.<sup>25</sup> While advances have been made in medical treatment and prevention of influenza, the military will suffer serious effects during the next pandemic along with the general population. Many military activities take place in close quarter areas. Person to person contact is increased in barracks housing, troop formations, on board ships and aircraft and other military activities which help spread the virus. A high percentage of service members in specific units could be affected simultaneously, degrading combat readiness. A pandemic could have significant impact on combat readiness of Soldiers to the point of restricting military operations. Other effects include: overwhelming of the military health care system, restriction of individual and unit movements, and the diversion of manpower from military missions to disaster relief missions.

The military has had good success with its sustained flu vaccine program over many years for the prevention of annual influenza epidemics in military populations, but the introduction of a new or novel flu strain would mean no immunity in all humans and a higher incident rate of influenza. With a vaccine not available for at least six months after a pandemic is identified, the military's use of antiviral drugs to treat flu victims will be crucial to maintaining combat readiness. Prioritization for these treatments within the DOD has been identified in guidance from the Assistant Secretary of Defense.

### Current Federal Roles in National Emergency Response

The federal government has a large role in national emergency response. This role continues to evolve and expand since the watershed events of September 11, 2001. By executive order, President Bush established the Homeland Security Council (HSC) and the Assistant to the President for Homeland Security. The Office of Homeland Security which evolved into the Department of Homeland Security was also established. These federal organizations now have significant responsibility for federal response to manmade and natural disasters.

Interagency coordination will be critical due to the number of federal departments and agencies involved with pandemic planning and response. Other critical organizations in a pandemic response that will be discussed here are the Department of Health and Human Services and the Department of Defense.

### Department of Homeland Security (DHS) Role

The Department of Homeland Security (DHS), created by Congress with the Homeland Security Act of 2002, "is responsible for coordinating federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies."<sup>26</sup> DHS began reorganizing the 22 agencies directed to be combined into one organization focused on homeland security. The effectiveness of this process has been the subject of numerous debates. Improvements in effectiveness have been made but diversity of missions and cultures have proved to be significant issues with synergizing these functions. In addition to the internal challenges of major reorganization, DHS has the challenge of coordinating federal emergency responses involving assets of many departments and agencies. Interdepartmental coordination is difficult for established organizations, let alone a new department in the throws of getting established. The Homeland Security Presidential Directive - 5 (HSPD-5) signed in February 2003 clearly identifies the Secretary of Homeland Security as the principle federal official for coordinating federal resources

utilized in response to or recovery from terrorist attacks, major disasters, or other emergencies if and when any one of the following four conditions applies: (1) a Federal department or agency acting under its own authority has requested the assistance of the Secretary [of Homeland Security]; (2) the resources of State and local authorities are overwhelmed and Federal assistance has been requested by the appropriate State and local authorities; (3) more than one Federal department or agency has become substantially involved in responding to the incident; or (4) the Secretary [of Homeland Security] has been directed to assume responsibility for managing the domestic incident by the President.<sup>27</sup>

There are a number of organizations within DHS that will play a role in a pandemic response. Although the Federal Emergency Management Agency (FEMA) focuses on natural disasters, FEMA's core competencies of preventing loss of life and coordinating federal resources during disasters give them a role in DHS response to pandemic. The Coast Guard will have an interdiction role in preventing banned products associated with limiting the spread of pandemics, specifically enforcing the USDA ban on birds and bird products from countries that have documented cases of H5N1 Avian Influenza. Immigration and Customs Enforcement (ICE) will limit the spread of the pandemic through tightened immigration and customs measures. The Bureau of Customs & Border Patrol has the tough task of securing the nation's borders to limit the spread of the virus via illegal entry into the country. Illegal immigrant routes on the southern border with Mexico lead to population centers in southern California and could exacerbate spread of the pandemic in the United States.

HSPD-5 directed the Secretary of Homeland Security to develop and administer a National Response Plan (NRP) as a guiding framework for federal preparation, prevention, response and recovery for domestic incidents of any type. The NRP was coordinated with and signed by all cabinet members and published by DHS in December 2004.<sup>28</sup> HSPD-5 also directed the Secretary of Homeland Security to develop and administer a National Incident Management System (NIMS). The NIMS can be viewed as the implementing instructions for the NRP. It provides the structure, mechanisms, and operating policy for federal government departments and agencies to use for management of domestic incidents, regardless of the cause, complexity, or size.<sup>29</sup> The NIMS was published on 1 March 2004 by DHS. Hurricane Katrina was the first large domestic incident that should have tested the NIMS.

Other actions DHS has taken to prepare for national incident response include standing up the Homeland Security Operations Center (HSOC) to coordinate with other operation/command centers to be the focal point for federal incident management information. The HSOC operates on a 24 hour basis and is staffed full time by members of approximately 40 departments and agencies. The HSOC also fuses many intelligence products into its functions to provide complete situational awareness,<sup>30</sup> but does not exercise any decision authority over ongoing actions. These actions should improve DHS response as the federal lead in the event of a pandemic.

#### Department of Health and Human Services (HHS) Role

With the Secretary of Homeland Security in charge of coordinating federal agency response, the Secretary for Health and Human Services has the lead for all health and medical

issues relating to a major disaster or emergency.<sup>31</sup> This is obviously a large portion of the total federal response to a pandemic. The HHS Secretary has the authority to declare a public health emergency under the provisions of Public Health Service Act.<sup>32</sup> HHS coordinates externally with the World Health Organization and other international organizations on pandemic planning, information sharing and response. HHS also coordinates internally with state and local governments to incorporate plans and response actions.

In conjunction with DHS, HHS manages a large stock of medicines and medical supplies called the Strategic National Stockpile (SNS). HHS was charged by Congress in 1999 to develop and maintain the SNS to protect the public in the event of a national health emergency of such significance that local supplies are depleted.<sup>33</sup> The SNS is configured into push-packages that can be deployed to affected areas in 12 hours and follow up packages for deployment in 24 to 36 hours. Influenza anti-viral stocks in the SNS have recently been increased but still can only service one to two percent of the U.S. population.<sup>34</sup>

HHS has a host of subordinate organizations playing a role in pandemic preparedness and response. Several with prominent roles are addressed below. HHS uses the Center for Disease Control and Prevention (CDC) to implement the HHS Pandemic Influenza Plan, raise public awareness, conduct laboratory development and testing, and conduct surveillance activities to limit the spread of pandemic. CDC will also make recommendations on use of the SNS and administer controls on quarantines for HHS in the event they become necessary during a pandemic. HHS is directing efforts at the National Institutes of Health for the development and testing of a vaccine for the H5N1 virus strain.<sup>35</sup> The Food and Drug Administration, another HHS agency, approves testing procedures and drugs such as vaccines and anti viral medication for human use and has worked closely with other agencies to fast track pandemic related issues.<sup>36</sup>

#### Department of Defense Roles

The DOD can leverage tremendous assets in support of domestic disaster relief but is normally in a supporting role. Commitments vary widely depending on the nature of the disaster and the preparedness of the states involved. As an example the U.S. military had a large role in Hurricane Katrina relief operations. At its peak, approximately 72,000 service members assisted in this effort. Other assets included 346 helicopters, 76 fixed-wing aircraft, 21 ships, amphibious landing crafts, satellite imagery, construction support and mortuary teams. Thousands of Gulf coast residents were rescued and evacuated by military forces. Additionally, over 30 million meals ready-to-eat and 10,000 truckloads of ice and water were delivered to the region<sup>37</sup>.

Because the magnitude of the hurricane was so large and first responders at the local and state levels were overwhelmed, the federal response was even more critical. With the problems encountered between all levels of government and the various federal agencies involved, the President suggested the Department of Defense (DOD) may be required to take a leadership role in disaster relief operations.<sup>38</sup>

DOD has an improved structure for supporting disaster relief with an Assistant Secretary for Homeland Defense who is the department's POC for support to civil authorities, emergency preparedness, and domestic crisis management.<sup>39</sup> Northern Command (NORTHCOM), the newest unified command in the DOD, was created in 2002 to focus on defense of the homeland and civil support.<sup>40</sup> NORTHCOM does not have forces permanently assigned, but as a combatant command receives forces to accomplish missions that are assigned by the Secretary of Defense. The Assistant Secretary of Defense for Health Affairs (ASD/HA) also has a leading role within DOD during pandemic planning and response.

Missions DOD will be required to execute in the event of pandemic are far reaching. Previous DoD guidance on pandemic planning focused on Force Health Protection (FHP). Updated guidance from ASD/HA expands planning direction to include Defense Support to Civil Authorities (DSCA) and support to Humanitarian Assistance and Disaster Relief (HA/DR) operations.<sup>41</sup> A recent Chairman of the Joint Chiefs of Staff (CJCS) Planning Order directed combatant commands to conduct execution level planning for DOD's response to a pandemic. Potential missions the combatant commanders were directed to include in planning are:

- Augment public health and medical services
- Provide logistic support and distribution of commodities to quarantined and / or isolated persons
- Provide manpower and security support to points of distribution and ports of entry
- Provide subject matter experts, manpower, and technical assistance to augment mortuary affairs operations
- Provide transportation support
- Provide continuity of government
- Augment communications for local, state, tribal and federal communications resources for interoperability
- Provide base and installation support to other local, state and federal agencies
- Ensure protection of defense industrial base, critical infrastructure and mission assurance

- Provide military assistance to civil disturbance for restoration of civil order as it relates to quarantine and isolation enforcement<sup>42</sup>

DOD recently began maintaining its own stockpile of antiviral drugs and vaccine to support military requirements in the event of a pandemic. Once complete, the stockpile will contain sufficient quantities of anti-viral treatments to treat priority requirements until a pandemic vaccine is available to military forces.

Expanding the role of federal military forces will have second and third order effects that must be weighed carefully. The impact of stretching the force by committing more manpower to disaster support during a time of war, legal implications for the force, increased budget costs, and the impact on public perception of the military must all be considered.

#### Impact of the Posse Comitatus Act on Military Response to Pandemic Support

The ramifications of any new mission for the U.S. military in support of disaster relief within the borders of the United States requires close study based on the 1878 congressional act commonly referred to as “Posse Comitatus”<sup>43</sup>

The Latin term posse comitatus translated means “the power of the county”<sup>44</sup> and in this context, relates to the power of a local county sheriff to form a posse of armed men to expand the size and capability of local law enforcement officials to assist with the enforcement of laws. During civil war reconstruction, the U.S. Army stationed in the southern states was commonly used to enforce reconstruction policy and local laws. The act was initially passed as reconstruction ended, to prevent the common practice of the Army being used to conduct domestic law enforcement.<sup>45</sup>

Because Posse Comitatus is a legislative act and not a constitutional amendment its principle of preventing the federal military from being used for law enforcement actions can be undermined by subsequent laws passed by Congress. In the first half of the 20<sup>th</sup> century federal troops were used to end the Chicago riots of 1919 and the Truman administration ended a railroad workers strike when he temporarily nationalized the railroads and placed them under the control of the Corps of Engineers. The 1947 National Security Act that created the Department of Defense contains an updated and reinforced reference to Posse Comitatus limiting the role of the armed forces in law enforcement.<sup>46</sup>

The examples of exceptions to the principle of the act are numerous and varied in scope.<sup>47</sup> The Air Force and Navy have been used in the war on drugs, immigration control, and tariff enforcement to interdict smugglers beyond U.S. borders. Federal forces have been used to quell civil disturbances when requested by a state governor or when a state is unable to protect

civil rights and/or property. When the President declares a major natural disaster he may use military forces and support on an emergency basis to preserve life and property such as Hurricane Andrew relief operations in Florida. Several exceptions have been granted to support the war on terror. After approval of the President, The Secretary of Defense can use federal forces, in the event of a terrorist attack involving weapons of mass destruction, nuclear material, or chemical and biological weapons. The President may also use federal forces in the execution of his duties to maintain transportation, education, commerce and civil rights. These exceptions are not part of U.S. Code but are broadly addressed as executive powers in Article II of the U.S. Constitution. Examples of these exemptions include using federal troops for desegregation of southern schools in the 1960's and use of over 10,000 troops to provide security for the 1996 Olympics in Atlanta. These examples are not all inclusive but clearly show there have been significant exceptions made to the original intent of the Posse Comitatus Act.

Posse Comitatus does not apply to National Guard forces while they are under the control of the governors of their respective states. Therefore, these forces may participate in law enforcement activities (and other duties) while in a "state control" status. Title 32 of the U.S. Code details state control of National Guard forces.<sup>48</sup> The President also has the power to federalize National Guard forces placing them under the control of the federal government. Once National Guard forces have been federalized they are subject to the same Posse Comitatus restrictions as active duty federal forces.

The trend in use of federal military for domestic purposes has risen significantly over the last thirty years. This use has led to more conflicts with the Posse Comitatus statutes as written and more exemptions being made by the legislative and executive branches. The debate over this use of federal forces has almost entirely been in the academic arena. There has been no public or political outcry of misuse of the military. In most cases where there has been public attention it has been focused on the impediments to allowing more force to be used in relief operations. It must be stated however, that a large majority of federal military support to civil authorities has been relief operations where the military is viewed as a savior and not to law enforcement operations where the federal military could be viewed as an enforcer with negative implications for DOD.

With the use of executive authority over the military and the exemptions to Posse Comitatus enacted by Congress, there is an apparent shift of power from the legislative to executive branch during times of crisis. This could create potential political hurdles for the President in pushing for the Department of Defense to take a leading role in disaster relief operations. It may be viewed as an attempt to consolidate more power in the executive branch

of government and Congress may be unwilling to further modify Posse Comitatus. During a pandemic, the military will likely perform many roles including some law enforcement missions. Clear definition of what actions are authorized by the military to support the federal response is crucial.

#### Current Actions Underway to Prepare For a Pandemic

The Federal government is now engaged in preparing the U.S. for the next pandemic. In 2004 and 2005 there were several national policy documents developed and published that set the course for federal response to national domestic emergencies starting with the National Incident Management System (NIMS) published by DHS in March 2004. Then the National Response Plan (NRP) was published in December 2004. Both of these documents lay out national priorities and provide specific guidance on roles and responsibilities for federal agencies. Although these documents are published, the effectiveness of the national response to hurricane Katrina indicates a coordinated implementation of the guidance is still to be realized.

In November 2005, in conjunction with a presidential visit to the Department of Health and Human Services, the Homeland Security Council published the National Strategy for Pandemic Influenza. The strategy focuses solely on national preparation, monitoring and response to pandemic influenza.<sup>49</sup> At the same time HHS rolled out their Pandemic Influenza Plan. This document contains extensive information on pandemic influenza and great detail on roles and responsibilities during a pandemic. It contains many detailed supplements providing guidance to state and local authorities as well as information on vaccine and antiviral drug distribution plans. The HHS Pandemic Influenza Plan is also synchronized with the World Health Organization (WHO) Preparedness Plan that was published in May 2005.<sup>50</sup> In addition to published documents on pandemics, HHS and CDC have posted a number of internet websites that provide great information for both public education as well as more detailed and technical information for health care and science professionals.<sup>51</sup>

Another action being taken by HHS is state wide summits conducted in each state, hosted by the HHS Secretary and Governors to raise awareness among state and local leaders, emergency service chiefs, business executives and other public agencies on planning and response to a pandemic. Outreach to the international community is also underway with a team of pandemic experts from USDA, US-AID, HHS, and DOS deployed to Turkey in January 2006 to capture lessons learned and determine how the U.S. can assist Turkey in their fight against Avian Influenza.<sup>52</sup>

On 1 November 2005, the President requested \$8.1B in emergency funding from Congress to prepare the U.S. for a pandemic. The request includes funding for development and purchase of vaccine and antiviral drugs, detection and containment of outbreaks, international activities, and preparation of all levels of government to respond.<sup>53</sup> As an example, contracts have been awarded to several vaccine companies to speed the development of cell-culture technology production of vaccines to be used as an alternative to egg based vaccine production that is a 60 year old technology. The fiscal year 2006 portion of the request for \$3.8B was authorized by House Resolution 2863 on 30 December 2005. Also in December of 2005, the Homeland Security Advisor and members of the cabinet conducted an executive level tabletop exercise to address interagency coordination in planning and response to a pandemic. An outcome was the need to exercise plans at local, state and federal level to ensure compatibility. So there is plenty of action at the federal level.

The Homeland Security Council is also pushing ahead with publishing the National Implementation Plan for Pandemic Influenza. The implementation plan follows up on the national strategy with detailed guidance on interagency coordination and actions to be accomplished in the event of a pandemic. Coordinating officers detailed from stakeholder departments and agencies to the HSC have been drafting the plan since the end of 2005. It is expected to be signed by cabinet members and published in March 2006.

DOD activity on pandemic preparedness has significantly increased over the last six months. Starting with the publishing of the DOD Strategy for Homeland Defense and Civil Support in June 2005, the department is reshaping the way it supports domestic crisis. All combatant commanders are completing execution level planning for DOD response to pandemic influenza based on a Chairman, JCS planning order published in November 2005. Plans will be coordinated between combatant commands and submitted for CJCS review by February 2006. The Assistant Secretary of Defense for Health Affairs (ASD/HA) published updated guidance on 25 January 2006 to all services on pandemic preparedness and response.<sup>54</sup> This document provides excellent detail on planning assumptions and responsibilities broken down by the phases of a pandemic. DOD is taking aggressive action to stockpile its own anti-viral drugs and vaccine in the event of a pandemic. Stockage levels are being increased to meet potential needs and detailed coordination meetings between the Joint Staff, Services, TRANSCOM and the Defense Supply Center Philadelphia (DSCP) have been completed with regard to distribution of DOD stocks and N-hour sequences.<sup>55</sup> DOD's Implementation Plan for Pandemic Response is currently in staff review with the Services, Joint Staff, and OSD with a target date of 31 March 2006 for signature by the Secretary of Defense.

Interdepartmental partnerships have been established with DOD, DHS, HHS, DOS and the Veterans Administration. In fact DOD and HHS have a signed interagency support agreement dealing with shortfalls in critical medical materials.<sup>56</sup>

Other departments are also taking action in their respective areas to ensure a coordinated response. As an example the USDA is updating its ban on poultry and poultry products from countries affected with H5N1 Avian flu. This action began back in February 2004 and is modified as H5N1 continues to spread across Europe, Asia and Africa.<sup>57</sup> Each federal agency will be required to have its own supporting plan to the National Implementation Plan for Pandemic Influenza once it is published in 2006.

#### Summary - Conclusions

A flu pandemic will happen again and will affect the United States. The H5N1 Avian influenza virus currently circulating in bird populations in Asia, Europe, and now Africa is spreading at an increasing rate. While human cases of the virus remain limited in number and only to people in direct contact with sick birds, the mortality rate for humans who contract the virus is over 50 percent. If the virus is able to mutate and becomes easily spread between humans a pandemic with staggering affects across the globe is possible. Depending on the morbidity and mortality rates of the virus strain, the impacts on the U.S. health care system and population in general could be debilitating. Affects on the military will be significant and preparation must be completed in order to maintain combat readiness as well as maintain forces that can assist with the disaster response.

Much work has been done in the last six months. A national strategy has been developed and published. Planning is underway in agencies across the federal government and many leaders are taking the threat of a pandemic seriously. Significant funding for preparation has been requested by the President and approved by Congress. Many physical preparations, coordinated by HHS, to increase the Strategic National Stockpile of medicines are underway and some coordination between federal agencies is ongoing. The Department of Homeland Security is making improvements in its organizational structure as well as its ability to coordinate federal actions. However, recent reports on Hurricane Katrina response underscore that much work is still required for DHS to be effective at interagency coordination and direction. The report by the HSC also brings back the recommendation that DOD should be placed in charge of disaster relief under certain circumstances.<sup>58</sup>

HHS, the lead for all health related issues during a pandemic, is taking an active role in preparing the nation. I believe the HHS understands that pandemic influenza is its "Hurricane

Katrina” on a larger scale and is taking extensive action to be ready. The state by state meetings with the HHS Secretary, governors and state responders is an outstanding method to get state and local governments energized on this threat. Its work with CDC, FDA, DOD and other agencies on the development of vaccine and the stockpile of required treatments and equipment is impressive.

Homeland Security Presidential Directive 5 (HSPD-5) published 28 Feb 2003 gives clear guidance and direction. It makes the Homeland Security Advisor responsible for interagency policy coordination on domestic incident management. It defines roles and responsibilities and directs interagency cooperation. However, cooperation does not equal directive authority and assigning responsibility for action without granting the requisite authority to carry it out is problematic. The NIMS and NRP have been published by DHS and provide a framework for operations during an incident of national significance but need to be further refined to make them more effective. A willingness by other departments and agencies to “buy-in” to this interagency process is also required.

DOD resources that can be used in a federal response to a pandemic are significant. The extent to which those assets are employed will be scrutinized at many levels. Changes in structure and the creation of NORTHCOM have postured the department to respond better to support a domestic incident of national significance. DOD is taking action to prepare specifically for a pandemic. These actions have grown from the internal view of force health protection to the myriad of support missions DOD units may be called on to execute. Detailed planning at OSD, Joint Staff and combatant commands will enable a quicker and more effective response to assigned missions. Creation of the DOD stockpile of antiviral and vaccine drugs with detailed prioritization for issue based on the developing situation is a significant step to ensuring the continued readiness of our military force. DOD is involved in some interagency coordination, particularly with HHS and DHS. Continued improvements are required in this arena to ensure a seamless federal response. Posse Comitatus restrictions should be considered with planning military missions during a pandemic. The statute is designed to prevent federal forces from directly conducting law enforcement tasks within the United States. However, with the number of exemptions currently found in the U.S. Code and the desire of the legislative and executive branches to have the military significantly involved in support to civil authorities during disaster relief, it is unlikely that military roles will be limited during a pandemic. The HSC after action report for Hurricane Katrina contains eleven recommendations concerning DOD. One recommendation states that DOD should assume a federal leadership role when dealing with catastrophic relief efforts which is a departure from published guidance giving DHS this leading

role. This unsettled issue must be analyzed and decided long before the next incident of national significance is upon us.

Although some preparation to respond to a pandemic had been in the works, the events of Hurricane Katrina, and its aftermath, clarified the need for federal government agencies to get serious about this different, but potentially devastating threat. The level of preparatory action since Katrina indicates departments and agencies are now serious about their own pandemic preparedness.

#### Recommendations

HHS must continue to partner with world and regional health organizations such as the WHO, the United Nations, and the European Union. Support to WHO Global Surveillance Laboratories will help halt the spread of bird flu and give us our best early information on a pandemic that begins in another part of the world. HHS should continue to increase the amount of antiviral drugs in the SNS. The Pandemic Response Plan puts the U.S. target at 25% of the population. But organizations such as the Infectious Diseases Society of America (IDSA) and the Society for Healthcare Epidemiology of America (SHEA) advocate a 40% level ideally.<sup>59</sup> Increasing the SNS level to 40% now will offer the U.S. population more protection in the early stages of a pandemic, reduce scrambling to obtain more doses once the pandemic begins, and will help stimulate domestic production of these medications.<sup>60</sup> HHS is involved with some coordination at the federal level but should increase its interagency leadership on health issues of pandemic response. The HHS Pandemic Response Plan does not list “coordinate information sharing with other federal agencies” as a task until Phase 6 of a pandemic.<sup>61</sup> This needs to be a core task conducted during all phases of pandemic planning.

Most of the technical issues of pandemic planning, preparation and response are now being adequately addressed at the departmental level. Departments and agencies are actively involved with their own internal planning and state and local governments are being brought into medical preparations of the national response plan. However interagency coordination needs to be improved. Not enough information sharing is taking place across the federal government. As the HSC continues to develop the National Implementation Plan for Pandemic Influenza some improvement at the action officer level can be observed but more needs to be accomplished. If this process is not improved during the planning and preparation phase, the response phase of the pandemic will be fragmented and the American people will suffer in the end.

We as a government cannot figure out who is going to be in charge of a national pandemic response after it starts or worse yet, when it become a catastrophic event. Based on

the federal response to Hurricane Katrina, President Bush indicated he wants Congress to consider placing the Department of Defense in charge of disaster relief operations.<sup>62</sup> The Federal Response to Hurricane Katrina Lessons Learned report published in February 2006 also recommends that in some cases DOD should be the lead in federal response to a catastrophic incident. These statements run counter to all recently published strategy and implementing policy on disaster relief and the role of DHS. DHS has clearly been identified as the lead federal agency for incidents of national significance and should be allowed to develop that capability. It does not make sense to develop a national response system and then change the leadership organization when a worst case situation is at hand. DHS is just three years old and has not matured as an agency to the point it can maximize the effectiveness of the many disparate functions it now controls. The larger organizational question is whether DHS should be responsible for such a wide variety of missions or should it shed functions such as disaster relief that are not specifically related to security of the homeland. Regardless of that debate, DOD should not be given the lead role for disaster relief, but use its significant resources, as directed by the President, to support relief efforts as appropriate. DOD must maintain focus on its prime mission of national defense. Clear command and control relationships must be decided at the executive level then enforced across all departments to coordinate the federal response. Much of this structure has already been laid out in the NRP and the NIMS and needs to be enforced at the executive level.

The Posse Comitatus Act will not prevent the military from participating or even playing an expanded role in disaster relief. However, for clarity and unity of command the code should be rewritten so there is no doubt about the role of the Department of Defense, its federal forces and reserve forces before the next disaster hits. There should be a clear legislative and executive definition of what limits will be imposed on the use of military forces for domestic law enforcement. The military role should be limited and more precisely defined. Clarity of the law in fast moving disaster relief operations is critical.

The Department of Defense should take action to improve its response in future disaster relief operations. The recently published Strategy for Homeland Defense and Civil Support<sup>63</sup> lays out a good strategy and core concepts for civil support. The document should be improved by including more detailed annexes for the types of disasters that DOD is likely to support such as pandemic influenza. These annexes should detail the types of preparations and interagency coordination required to meet each of these varied challenges. Hard trigger events should be developed for some predictable civil support scenarios. This approach is proactive instead of reactive, takes the politics out of the equation, and allows for better interagency planning.

DOD needs to address force composition and consider the increased demand on military forces for disaster relief missions. Factors that must be considered include what percentage of the force should be active or reserve component and to what extent military forces will be used to support security and disaster relief operations. The President's fiscal year 2007 budget calls for reductions in National Guard and Army Reserve forces which equals less force available to Governors to respond to disaster relief missions in a Title 32 status. I recommend the status quo approach to force structure as it leaves adequate forces in place for all missions and avoids a large political battle that will divert focus from preparing for the nation's security threats.

HSC needs to drive the interagency process as directed in HSPD-5 and complete the implementation plan for pandemic influenza. Current departmental levels of activity will cover the major events of a pandemic. But an efficient and effective, coordinated response is still not realized. If the interagency process and clear command and control issues can be resolved before the next pandemic, the American people will be the beneficiaries.

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"Whoever, except in cases and under circumstances expressly authorized by the Constitution or Act of Congress, willfully uses any part of the Army or the Air Force as a posse Comitatus or otherwise to execute the laws shall be fined under this title or imprisoned not more than two years, or both."

The Air Force was added to the original act in 1956. The Marine Corps and Navy are not listed in the act itself but are subject to it by DoD Regulation 32 C.F.R. Section 213.2, (1992).

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"Sec. 375. Restriction on direct participation by military personnel. The Secretary of Defense shall prescribe such regulation as may be necessary to ensure that any activity (including the provision of any equipment of facility or the assignment or detail of any personnel) under this chapter does not include or permit direct

participation by a member of the Army, Navy, Air Force, or Marine Corps in a search, seizure, arrest, or other similar activity unless participation in such activity by such member is otherwise authorized by law”.

<sup>47</sup> Trebilcock, 2-3.

These examples of exceptions are found in various sections of U.S. Code, Title 10, Sections 371-381; U.S. Code, Title 10, Sections 331-334; The Stafford Act, U.S. Code, Title 42, Section 5121; U.S. Code, Title 10, Sections 382 and 831.

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